Board of Governors of the Federal Reserve System

REPORT ON THE AUDIT OF THE BOARD'S COMPLIANCE WITH THE SERVICE PRICING PROVISIONS OF THE MONETARY CONTROL ACT

OFFICE OF INSPECTOR GENERAL

(A9703) March 1998

BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

OFFICE OF INSPECTOR GENERAL

March 19, 1998

Governor Edward W. Kelley, Jr.
Chairman
Committee on Reserve Bank Affairs

One of Congress's major objectives in enacting the Monetary Control Act of 1980 (Act) was to promote a more efficient nationwide payments system by encouraging competition between the Federal Reserve and private-sector providers of payments services. In addition to defining the set of Federal Reserve services to depository institutions that must be priced, the Act established four principles that the Federal Reserve must use in determining prices and directed the Board to adopt and implement a set of pricing principles in accordance with those in the Act. We began an audit in August 1997 to determine if the Board had adopted adequate policies, procedures, and controls to ensure compliance with the Act's service pricing provisions. We are pleased to present our *Report on the Audit of the Board's Compliance with the Service Pricing Provisions of the Monetary Control Act* (A9703), enclosed.

Overall, we found that the Board has adopted policies, procedures, and controls that are adequate to ensure compliance with the Act and that the Board's pricing principles and related guidance are consistent with the Act's requirements. However, we believe the format used to present the results of priced services operations could be improved and recommend that the Board reevaluate the financial statement format for presenting annual cost recovery results. We identified two alternative reporting formats: (1) present priced service financial information with the audited consolidated Federal Reserve Bank financial statements as an operating segment to ensure the reliability of results and adequacy of disclosure and (2) eliminate the financial statement format for results presentation and present priced service data in statistical tables with narrative explanations to facilitate reporting of long run cost/recovery results. If the Board elects to maintain the current financial statement reporting format, we believe reporting would be improved by eliminating the pro forma balance sheet, more clearly labeling imputed revenue and expenses in the pro forma income statement, adding income taxes to the pro forma income statement by service, revising the note disclosures, changing the title of the statements, and clearly indicating that the statements are unaudited.

In complying with the Act, the Federal Reserve is required to impute an allowance for taxes and other costs that would have been incurred, including a return on capital that would have been earned, had the services been provided by a private business firm. The Division of Reserve Bank Operations and Payment Systems (RBOPS) is responsible for the calculation of these costs (known as the private sector adjustment factor (PSAF)) and currently relies on Federal Reserve Bank of Chicago staff to collect and process the required data. While the PSAF methodology is consistent with the requirements of the Act, we found the calculation process is complex and thus susceptible to error. Although the errors that we found did not materially affect the final PSAF, we recommend that RBOPS improve the efficiency, accuracy, and reliability of the PSAF calculation process by better quality control over the development and use of the underlying spreadsheet data.

During our closing meeting, RBOPS officials asked for our opinion as to whether the Federal Reserve's handling of pension credits was reasonable and consistent in the context of how the Board complies with the pricing provisions of the Monetary Control Act. We understand that this question was prompted by a congresswoman's concern that such credits, which reduce Reserve Bank costs, may result in the Federal Reserve being able to charge lower prices for its services and unfairly undercut private sector competitors. While the question was not a specific objective of this audit, pension credits were one of several accounting policy and special cost adjustments that we reviewed. We concluded that the Board's handling of pension credits was reasonable and consistent in the context of how the Board complies with the pricing provisions of the Monetary Control Act (see appendix 3).

We provided a draft of this report to the RBOPS director for review and comment. His response, included as appendix 1, indicates concurrence with our conclusions and the intent to act on our recommendations. We plan to follow up on implementation of our recommendations and will report any exceptions to the committee.

We are sending a copy of this report to each member of the Board and to selected staff. The report is available to the public, and a summary will appear in our next semiannual report to the Congress. We are also making the report available on our Internet web page at *http://www.ignet.gov/ignet/internal/frb/oighome.html*.

Sincerely,

Brent L Bowen
Inspector General

Enclosure

Board of Governors of the Federal Reserve System

REPORT ON THE AUDIT OF THE BOARD'S COMPLIANCE WITH THE SERVICE PRICING PROVISIONS OF THE MONETARY CONTROL ACT

OFFICE OF INSPECTOR GENERAL

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BACKGROUND

One of Congress's major objectives in enacting the Monetary Control Act of 1980 (MCA) was to promote a more efficient nationwide payments system by encouraging competition between the Federal Reserve and private-sector providers of payments services. One section of the MCA addressed the pricing of services and added section 11A to the Federal Reserve Act.[1] In addition to defining the set of Federal Reserve services to depository institutions that must be priced, this section established four principles that the Federal Reserve must use in determining prices and directed the Board to establish a set of pricing principles in accordance with the four included in the MCA. Accordingly, on January 6, 1981, the Board announced in the *Federal Register* that it had adopted seven "Principles for Pricing of Federal Reserve Bank Services" (Principles). The Principles, which are presented in table 1, consist of the four principles included in the MCA and three others intended to provide Reserve Banks flexibility to adjust to changing market conditions, promote efficiency, and foster developing payment system technologies.

Additional Pricing-Related Policies

Over the years, the Board has issued several policy statements to implement the Principles, two of which pertain directly to cost recovery. The first, adopted in June 1981, allowed for the deferred recovery of certain development costs for pricing purposes. This policy served as the basis for the System's special project cost allocation methodology, which is intended to enable each service to maintain relatively stable costs and prices rather than having each service adjust prices to cover significant temporary upward or downward cost fluctuations as they occur. When a special project is used, the System announces use of the technique, and any costs deferred for pricing purposes are subject to financing charges based on the marginal cost of long-term capital and are recouped over a conservative time period. The consolidation of Reserve Bank automation at three Federal Reserve Automation Services (FRAS) processing sites, which began in 1992, has been the most significant application of the special project approach.

[1]The MCA also amended other parts of the Federal Reserve Act. In this report, references to MCA requirements refer only to those provisions pertaining to service pricing that were incorporated as section 11A of the Federal Reserve Act.

Table 1: Federal Reserve Pricing Principles

Statutory
1. All Federal Reserve Bank services covered by the fee schedule shall be priced explicitly.
2. All Federal Reserve Bank services covered by the fee schedule shall be available to nonmember depository institutions and such services shall be priced at the same fee schedule applicable to member banks, except that nonmembers shall be subject to any other terms, including a requirement of balances sufficient for clearing purposes, that the Board may determine are applicable to member banks.
3. Over the long run, fees shall be established on the basis of all direct and indirect costs actually incurred in providing the Federal Reserve pricedservices, including interest on items credited prior to actual collection, overhead, and an allocation of imputed costs which takes into account the taxes that would have been paid and the return on capital that would have been provided had the services been furnished by a private business firm, except that the pricing principles shall give due regard to competitive factors and the provision of an adequate level of such services nation-wide.
4. Interest on items credited prior to collection shall be charged at the current rate applicable in the market for Federal funds.
Nonstatutory
5. The Board intends that fees be set so that revenues for major service categories match costs (inclusive of a private sector markup). During the initial start-up period, however, new operational requirements and variations in volume may temporarily change unit costs for some service categories. It is the System's intention to match revenues and costs as soon as possible and the Board will monitor the System's progress in meeting this goal by reviewing regular reports submitted by the Reserve Banks. If, in the interest of providing an adequate level of services nationwide, the Board determines to authorize a fee schedule for a service below cost, it will announce its decision.
6. Service arrangements and related fee schedules shall be responsive to the changing needs for services in particular markets. Advance notice will be given for changes in fees and significant changes in service arrangements to permit orderly adjustments by users and providers of similar services.
7. The structure of fees and service arrangements may be designed both to improve the efficient utilization of Federal Reserve services and to reflect desirable longer-run improvements in the nation's payments system. Public comment will be requested when changes in fees and service arrangements are proposed that would have significant longer-run effects on the nation's payments system.

On November 2, 1984, the Federal Reserve issued a press release that included another statement of pricing policy regarding the treatment of surpluses and shortfalls that arise from the provision of services to depository institutions. The policy statement formalized the Federal Reserve's practice of establishing fees for its services designed to recover projected costs for the calendar year, rather than to offset prior years' surpluses or shortfalls.

How Prices Are Established

To assist depository institutions in their planning to provide or use correspondent banking services, the Federal Reserve usually sets each year's prices only once, in the fourth quarter of the preceding year.[2] In keeping with the Principles, prices are set based on all direct and indirect costs incurred in providing the priced services. The Federal Reserve's expense accounting system, the Planning and Control System (PACS), has been considered ideal for satisfying this requirement since it provides a means to identify direct costs and has rules in place to assign support and overhead (indirect) costs to services. Furthermore, individual priced services were already designated as output services in PACS when the Principles were adopted.

The Federal Reserve's annual pricing process involves a review of Reserve Bank expenses in conjunction with the System's budget process. Use of the budget is an integral part of the pricing exercise because most of the recoverable costs of priced services are the direct and indirect costs included in each Reserve Bank's budget that have been estimated based on historical PACS data. Reserve Banks and the product director responsible for each service use this cost information in conjunction with volume and revenue projections to set local and national fees. All fees for Federal Reserve services are approved by the product directors and the Financial Services Policy Committee (FSPC).[3] The FSPC sends the fee proposal to the Board's Division of Reserve Bank Operations and Payment Systems (RBOPS), which evaluates the proposal and presents the fees for approval to the Board of Governors (Board). After the fees are approved by the Board, a pricing announcement is published in the *Federal Register*. The announcement includes selected fees as well as a description of, and the recovery ratio for, each priced service.

How the Private Sector Adjustment Factor (PSAF) Is Calculated

A major aspect of compliance with the statutory Principles involves the calculation of the PSAF. Currently, the PSAF comprises interest on debt, return on equity, income and sales taxes, assessments for deposit insurance from the Federal Deposit Insurance Corporation,

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[2]Selected prices can also be modified during the year to adjust for new product offerings and to react to various demand or cost changes.

[3]The FSPC was created in late 1994 to coordinate management and strategic planning for the provision of financial services by the 12 regional Reserve Banks and has oversight for ensuring that Reserve Banks provide reliable, high-quality financial products.

and an estimate of the expenses of the Board of Governors that are directly related to priced services. These imputed costs are based on data developed from a model comprising consolidated financial data for the nation's fifty largest (in asset size) bank holding companies (BHCs) and from the budgets of the Reserve Banks and the Board. The BHC model is used to derive certain figures such as long-term debt rates, a debt/equity split, a rate of return on equity, and an income tax rate. These figures, along with information obtained from the budgets of the Reserve Banks and the Board, are used in a series of spreadsheets to calculate the PSAF. The intent of the PSAF calculation is to require the Federal Reserve to include in its priced service costs an allocation of imputed costs that would have been incurred had the services been provided by a private-sector firm.

Recovery Ratio Monitoring and Reporting

The Federal Reserve monitors and publishes performance results for the following six commercial priced services:

— Check

— Automated Clearing House (ACH)

— Funds Transfer and Net Settlement

— Book Entry Securities

— Noncash Collection

— Special Cash Services

In doing so, the Board focuses on the overall cost recovery ratio for all priced services and the specific recovery ratio for each service.[4] To track the recovery ratio, the Board needs timely reporting of cost and revenue data from the Reserve Banks. The Board's Cost/Revenue (CORE) system incorporates information from PACS, as well as volume and revenue information from the Reserve Banks' billing systems, to enable the Board to produce an income statement and recovery ratio for each priced service. CORE information is used to prepare the Financial Services Monthly Financial Report, which provides an update on monthly, as well as year-to-date, recoveries. The monthly report also includes an analysis of the factors that had a significant impact on cost recovery and an explanation of the reason for any underrecoveries.

[4] The cost recovery ratio is *total revenue* (including net income on clearing balances) *divided by total cost,* which is the sum of all direct, indirect, and imputed costs (including the targeted return on equity).

The Board publishes a description of priced services activities and performance in its annual *Federal Register* announcement of the next year's prices and in its *Annual Report*.[5] The *Annual Report* presentation includes Pro Forma Financial Statements for Federal Reserve Priced Services (financial statements) (see appendix 2). The financial statements consist of a balance sheet, income statement, income statement by service, and accompanying notes.[6] Because certain items such as special project costs and pension credit adjustments are treated differently for pricing purposes than for financial reporting, reported results vary slightly under the pricing announcement and financial statement approaches. For example, over the period 1987 through 1996, the Federal Reserve reported a cost recovery ratio of 99.9 percent in the pricing announcement and 100.7 percent in the *Annual Report*. It should be recognized that both calculations are based on recovering imputed costs embodied in the PSAF that are not actually incurred. Thus, priced services have generated more than $886 million in real recoveries during the same ten-year period. These earnings are transferred by the Federal Reserve to the Treasury each year.

OBJECTIVES, SCOPE, AND METHODOLOGY

We conducted our fieldwork from August through December 1997. Our overall objective was to determine if the Board has adopted adequate policies, procedures, and controls to ensure compliance with the MCA. Specifically, we wanted to determine whether

— the Principles adopted by the Board and other guidance issued by the Board are consistent with the requirements of the MCA,

— the PSAF methodology is consistent with the requirements of the MCA and the Principles, and

— the pricing and reporting methodologies are consistent with the requirements of the MCA and the Principles.

To accomplish these objectives, we reviewed and analyzed the Principles, the MCA, and related documentation and interviewed Board officials and staff to evaluate compliance with the MCA. We also interviewed Federal Reserve Bank (FRB) of Chicago officials and staff regarding the PSAF methodology, and we reviewed and analyzed the spreadsheets, formulas, workpapers, and documentation related to the calculation of the 1997 PSAF. We

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[5] The Federal Reserve Act requires the Board to make a full report annually on its operations to Congress. The Board does so in its *Annual Report*.

[6] The Board also includes a pro forma balance sheet and income statement for priced services in three of the monthly *Federal Reserve Bulletin* (July, October, and January) to summarize quarterly performance (ending March 31, July 31, and September 30, respectively).

reviewed the documentation available and methodologies used to present the results of priced services operations for 1996 and the ten-year cost recovery performance statistics. However, we neither performed a financial audit of the Pro Forma Financial Statements for Federal Reserve Priced Services nor assessed the internal controls of the computer-based systems used by the Board and the Reserve Banks to generate financial information related to priced services. Although one of our objectives was to determine that procedures and methodologies in use are consistent with the Principles, we did not focus our attention on principle 6 (see table 1, page 2) because the Committee on the Federal Reserve in the Payments Mechanism was in the process of assessing the Federal Reserve's role in the payments system during our audit.

During our closing meeting on this audit, RBOPS officials requested that we provide our opinion regarding whether the Federal Reserve's handling of pension credits was reasonable and consistent in the context of how the Federal Reserve complies with the MCA. While this issue was not a specific objective of this audit, pension credits were one of several accounting policy and special cost adjustments that we reviewed as part of our evaluation of the Federal Reserve processes for setting prices and reporting on priced service cost recovery performance as required by the MCA (see appendix 3).

Our audit was conducted in accordance with generally accepted government auditing standards.

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Overall, we found that the Board has adopted policies, procedures, and controls that are adequate to ensure compliance with the MCA and that the Principles and related guidance are consistent with the requirements of the MCA. However, we believe the format used to present the results of priced services operations could be improved, and we have identified two alternative reporting approaches for consideration. If the Board continues to use the current financial statement format, we believe the presentation would be improved by eliminating the pro forma balance sheet, more clearly labeling imputed revenue and expenses in the pro forma income statement, adding income taxes to the pro forma income statement by service, revising the note disclosures, changing the title of the statements, and clearly indicating that the statements are unaudited.

In addition, while the PSAF methodology is consistent with the requirements of the MCA, we found the calculation process to be complex and thus susceptible to errors. Although the errors that we found did not materially affect the final PSAF calculation, we believe the calculation process could be made more efficient, accurate, and reliable by better quality control over the development and use of the spreadsheets.

1. We recommend that the Board reevaluate the financial statement format for presenting annual cost recovery results.

We reviewed the documentation and methodologies used to prepare the financial statements that were published in the 1996 *Annual Report* (see appendix 2).[7] While the financial statement presentation format is familiar to readers of financial information, we believe the Board should evaluate alternative formats that could more clearly demonstrate the Board's compliance with the MCA. We have identified two alternative reporting formats for the Board to consider.

One option is to present the priced services financial information with the audited consolidated Federal Reserve Bank financial statements as an operating segment. Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance. Although the Federal Reserve's priced services operations do not meet the quantitative thresholds that would require the presentation of segment information with the audited financial results, it may still be possible to do so. We believe this presentation, which would entail independent audit review, would result in increased reliability of the results and improved disclosure. On the other hand, presentation of priced services cost recovery results with the audited consolidated Reserve Bank financial statements might unnecessarily limit flexibility and the costs for increased audit coverage may outweigh the potential benefits.

In the second option, RBOPS could eliminate the use of a financial statement format and present priced services cost recovery data in statistical tables along with narrative explanations. While the amount of data presented and costs of preparation may not decrease with a table presentation, use of a series of tables might permit more flexibility in the presentation of priced services results. For example, the current *Annual Report* pro forma financial statements do not explicitly show the basic computation of the annual priced services cost recovery percentage or the recovery percentages over the previous ten-year period. Such information is presented in table 1 of the pricing announcement, but the computations there do not include the full effect of certain accounting adjustments that are relevant to the *Annual Report* presentation.

If, on the other hand, RBOPS determines that the use of the financial statement format should be continued, we believe that RBOPS should improve the presentation of priced services cost recovery results by

— eliminating the pro forma balance sheet and instead presenting relevant balance sheet data in notes to the pro forma income statement,

[7] The 1996 *Annual Report*, issued May 1997, was the most recent report available at the time of our audit.

— improving line item descriptions in the income statement by clearly labeling imputed revenues and expenses,

— disclosing the amounts of previously deferred special project costs and associated financing costs recognized each year,

— reviewing and revising the note disclosures as needed to ensure that related line items are fully explained,

— disclosing net recovery by service by including income taxes and targeted return on equity in the pro forma income statement by service, and

— changing the statement titles and labeling the statements as "unaudited" to ensure that readers understand the nature of the statements presented.

Each of these items is discussed in more detail in the following pages.

During our review, we found clerical errors in the preparation of the pro forma balance sheet. For example, we noted that the 1996 pro forma balance sheet was created with 1995 priced service allocation percentages. This error resulted in misstatements in several asset and liability accounts, such as furniture and equipment being overstated by approximately $22.7 million and long-term debt being overstated by about $7.7 million. In addition, postretirement/postemployment benefits obligations were understated by about $13.8 million as a result of several computation errors. The errors we found did not affect the cost recovery results reported in the pro forma income statement because the pro forma balance sheet is essentially an estimate of asset, liability, and equity levels at year-end. Thus, the data presented in the pro forma balance sheet do not relate directly to the figures reported in the pro forma income statement (as they would in a typical financial statement presentation), which raises a question about the usefulness of the balance sheet.

In addition, we found that it is not always clear whether individual line items in both the pro forma income statement and pro forma balance sheet represent allocations of actual operating income and expenses to priced services or represent imputed income and expenses. For example, the “Investment income” line item of the pro forma income statement assumes that clearing balances are invested at the three-month Treasury bill rate and does not represent an allocation of actual investment income earned by the Federal Reserve. However, neither the line item presentation nor the explanatory note indicate that this item represents an estimate.

Financial information related to special projects was also not clearly presented in the financial statements. Amounts related to FRAS special project costs cannot be readily identified because they are not presented as specific line items, but rather are handled through the use of a note that is linked to an additional explanation in the pricing announcement. Without having the pricing announcement available, the reader cannot determine the amount of deferred and financed special project costs that could impact future priced service performance.

We also found that the notes to the financial statements do not always fully explain a particular line item and may often contain information not directly related to the particular line item or to the general statement presentation. Specifically, the last two paragraphs of note 6 related to imputed costs provide information on the Federal Reserve's daily average float recovery experience and detailed discussions of float adjustments. These explanations do not directly relate to the statement presentation and may be difficult to follow since key terms such as "as-of adjustments," "midweek closing float," and "interterritory check float" are not defined. At the same time, information that could assist the reader in understanding how certain line items were derived is omitted. For example, the note could explain that interest on float is calculated by applying the Federal funds rate to actual float volumes related to priced services and that sales taxes are based on tax rates prevailing in the States where Reserve Banks are located. In addition, note 11 related to return on equity could be improved. The referenced figure is not a "rate" of return—it is a targeted earnings amount. The note does not clearly indicate that this targeted earnings amount is another *imputed cost* [emphasis added] that is to be recovered by priced service revenue to comply with the MCA.

We also found that the pro forma income statement by service does not include all of the components of the PSAF in its presentation. In particular, income taxes for each priced service and the targeted return on equity for each service are not shown. Note 8 indicates that taxes have not been allocated by service because they relate to the organization as a whole. However, income taxes and a targeted return on equity are allocated to each service in order to determine the cost recovery result for each priced service, which is published annually in the pricing announcement.

We also believe that the statement title "Pro Forma Financial Statements" could lead a reader to assume that the statements were prepared in their entirety using standard historical cost and accrual basis accounting principles without recognizing the unique nature of the imputed costs in this presentation. We believe that substituting a title more descriptive of the special purpose reporting of priced services cost recovery results would be more appropriate (as would labeling the statements "unaudited").

We met with RBOPS staff at the conclusion of our fieldwork and provided them with more detailed information to simplify and clarify statement presentation and to correct computation errors.

2. We recommend that RBOPS improve the efficiency, accuracy, and reliability of the private-sector adjustment factor (PSAF) calculation process by

— eliminating unused spreadsheet data elements and formulas,

- **reviewing formulas for accuracy,**

- **developing and maintaining an adequate level of documentation regarding the purpose of each formula, and**

- **developing and implementing a change control process to ensure that all future revisions to the spreadsheets have been properly reviewed and approved.**

The Board is responsible for ensuring compliance with the MCA, a major aspect of which involves the annual calculation of the PSAF. RBOPS relies on staff at one of the Reserve Banks for a portion of the work performed to calculate the PSAF. Since the calculation of the 1994 PSAF, FRB Chicago staff has been responsible for this work with oversight and input from RBOPS staff.

The primary instruments used to calculate the PSAF are a series of spreadsheets that are under the control of FRB Chicago, containing hundreds of formulas. In order to obtain the information needed to calculate the PSAF, FRB Chicago staff sends a diskette containing a copy of a spreadsheet consisting of ten worksheets to staff at each Reserve Bank and to FRAS staff. Following the instructions provided with the spreadsheet, the staff input the required data elements into the spreadsheet and return the updated diskette to FRB Chicago. Upon receipt of the updated diskettes, FRB Chicago staff copies certain data from the diskettes into a second spreadsheet which is made up of seventeen worksheets. The PSAF is calculated from this second spreadsheet.

Our review of the spreadsheet submitted by one Reserve Bank and the spreadsheet created by FRB Chicago to calculate the 1997 PSAF identified opportunities to improve the efficiency, accuracy, and reliability of the data collection process. We found data elements and formulas included in the spreadsheets that are not directly used in the final PSAF calculation. Guidance from RBOPS regarding output requirements and a detailed analysis of how requested data are used would help ensure that only necessary data gathering and calculations are being performed.

We also found several incorrect formulas and keying errors in the detailed worksheets that affected the reliability and accuracy of the underlying calculations, although they did not have a material effect on the final PSAF calculated for 1997. We believe that data input errors could be reduced by having more data elements transferred automatically from previously calculated cells instead of having such data keyed in manually. We recognize that some formula errors will occur because of the complexity of the calculation process and the need to modify the formulas when changes are made in PACS data rules. However, we believe that the potential for formula errors would be reduced if the purpose of each of the formulas contained in the spreadsheets was documented and if there was a more systematic process in place to ensure that changes to the formulas have been properly reviewed or approved by RBOPS. RBOPS staff members stated that during the annual PSAF calculation process, they check the more significant data elements, formulas, and formula changes affecting the PSAF calculation, but they do not systematically review with FRB Chicago staff the changes that have been made in the underlying calculation formulas.

FRB Chicago staff stated that much of the current spreadsheet content was the same as that used by the Reserve Bank previously responsible for the calculation. Staff said that a couple of years ago when they converted the spreadsheets to a new version of the software, they used the opportunity to make a change that reduced the amount of detailed data on support cost redistribution that Reserve Banks needed to provide. FRB Chicago is considering replacing the current spreadsheet software with another spreadsheet package. We believe this is an opportune time for the Board to work with FRB Chicago to address the efficiency, accuracy, and reliability issues that we observed.

ANALYSIS OF COMMENTS

We provided a draft of the report to the RBOPS director for review and comment. His response (appendix 1) indicates concurrence with our findings and conclusions and the intent to act on our recommendations. The response states that the division is currently assessing various approaches to improving financial information reporting with implementation of any refinements targeted for the fall 1998 pricing announcement and the 1998 Board *Annual Report*. The response also indicates that division staff will work closely with FRB Chicago staff to improve the PSAF calculation process.

APPENDIXES

Appendix 1 - Division's Comments

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

DIVISION OF RESERVE BANK OPERATIONS AND PAYMENT SYSTEMS

Date: March 13, 1998

To: Barry R. Snyder

From: Clyde H. Farnsworth, Jr.

Subject: Response to Draft Report on Board's Compliance with the Service Pricing Provisions of the Monetary Control Act

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Thank you for the opportunity to comment on the Office of Inspector General's (OIG) draft *Report on the Audit of the Board's Compliance with the Service Pricing Provisions of the Monetary Control Act*. We concur with the OIG's assessment that the Board has adopted policies, procedures, and controls that are adequate to ensure compliance with the Act. In addition, we concur with your conclusion that the Board's handling of pension credits is reasonable and consistent with the service pricing provisions of the Act.

We believe it is important to present financial information regarding Federal Reserve priced services activities in a clear manner that enables the Board, the Congress, and the public to assess the Federal Reserve's compliance with the Act. We are in the process of reviewing our priced services financial information reporting format used in the Board's annual pricing announcement and annual report to determine how best to present this information. We are assessing various approaches to improving our financial information reporting, including the use of statistical tables. Where appropriate, we will implement refinements to the priced services financial reporting in the fall 1998 pricing announcement and in the 1998 Board annual report.

The report's recommendation on the calculation process for the private sector adjustment factor (PSAF) has been shared with the staff at FRB Chicago, who perform these calculations. We will work closely with FRB Chicago staff to improve this process.

Appendix 2 - Pro Forma Financial Statements

Pro Forma Financial Statements for Federal Reserve Priced Services

Pro Forma Balance Sheet for Priced Services, December 31, 1996 and 1995

Millions of dollars

Item	1996		1995	
Short-term assets (Note 1)				
Imputed reserve requirements on clearing balances	658.3		504.2	
Investment in marketable securities	5,924.7		4,537.8	
Receivables	69.0		63.7	
Materials and supplies	3.2		10.6	
Prepaid expenses	26.5		19.4	
Items in process of collection	7,548.4		2,397.4	
Total short-term assets		14,230.1		7,533.1
Long-term assets (Note 2)				
Premises	393.5		356.6	
Furniture and equipment	171.1		170.3	
Leases and leasehold improvements	31.0		24.2	
Prepaid pension costs	287.4		242.1	
Total long-term assets		883.0		793.1
Total assets		**15,113.1**		**8,326.2**
Short-term liabilities				
Clearing balances and balances arising from early credit of uncollected items	12,366.3		5,154.8	
Deferred-availability items	1,765.1		2,284.5	
Short-term debt	98.7		93.7	
Total short-term liabilities		14,230.1		7,533.1
Long-term liabilities				
Obligations under capital leases	2.3		3.8	
Long-term debt	196.9		164.3	
Postretirement/postemployment benefits obligation	178.6		176.1	
Total long-term liabilities		377.8		344.3
Total liabilities		**14,607.9**		**7,877.4**
Equity		505.2		448.8
Total liabilities and equity (Note 3)		**15,113.1**		**8,326.2**

NOTE. Components may not sum to totals because of rounding.

The priced services financial statements consist of these tables and the accompanying notes.

Appendix 2 - Pro Forma Financial Statements

Pro Forma Income Statement for Federal Reserve Priced Services, 1996 and 1995

Millions of dollars

Item	1996		1995	
Revenue from services provided to depository institutions (Note 4)		787.2		738.8
Operating expenses (Note 5)		666.0		655.2
Income from operations		121.2		83.6
Imputed costs (Note 6)				
Interest on float	21.9		19.0	
Interest on debt	17.3		16.2	
Sales taxes	11.6		22.1	
FDIC insurance	0.0	50.8	6.3	63.7
Income from operations after imputed costs		70.4		19.9
Other income and expenses (Note 7)				
Investment income	315.8		259.6	
Earnings credits	−287.1	28.7	−233.2	26.4
Income before income taxes		99.1		46.3
Imputed income taxes		29.6		14.4
Income before cumulative effect of a change in accounting principle		69.5		31.9
Cumulative effect on previous years from retroactive application of accrual method of accounting for postemployment and vacation benefits (*net of $8.7 million tax*) (Note 9)		...		19.4
Net income (Note 10)		69.5		12.6
Memo: Targeted return on equity (Note 11)		42.9		31.5

Note. Components may not sum to totals because of rounding.

The priced services financial statements consist of these tables and the accompanying notes.

Pro Forma Income Statement for Federal Reserve Priced Services, by Service, 1996

Millions of dollars

Item	Total	Commercial check collection	Funds transfer and net settlement	Book-entry securities	Commercial ACH	Noncash collection	Cash services
Revenue from operations	787.2	588.1	94.7	16.6	77.4	5.2	5.2
Operating expenses (Note 5)	666.0	527.0	68.2	15.6	60.8	4.4	5.0
Income from operations	121.2	61.1	26.4	1.0	16.6	.8	.2
Imputed costs (Note 6)	50.8	43.7	2.9	.6	2.9	.5	.2
Income from operations after imputed costs	70.4	17.4	23.5	.4	13.7	.4	.0
Other income and expenses, net (Note 7)	28.7	22.5	2.9	.5	2.4	.2	.2
Income before income taxes	99.1	39.9	26.4	.9	16.2	.5	.2

Note. Components may not sum to totals because of rounding.

The priced services financial statements consist of these tables and the accompanying notes.

FEDERAL RESERVE BANKS

NOTES TO FINANCIAL STATEMENTS FOR PRICED SERVICES

(1) SHORT-TERM ASSETS

The imputed reserve requirement on clearing balances held at Reserve Banks by depository institutions reflects a treatment comparable to that of compensating balances held at correspondent banks by respondent institutions. The reserve requirement imposed on respondent balances must be held as vault cash or as nonearning balances maintained at a Reserve Bank; thus, a portion of priced services clearing balances held with the Federal Reserve is shown as required reserves on the asset side of the balance sheet. The remainder of clearing balances is assumed to be invested in three-month Treasury bills, shown as investment in marketable securities.

Receivables are (1) amounts due the Reserve Banks for priced services and (2) the share of suspense-account and difference-account balances related to priced services.

Materials and supplies are the inventory value of short-term assets.

Prepaid expenses include salary advances and travel advances for priced-service personnel.

Items in process of collection is gross Federal Reserve cash items in process of collection (CIPC) stated on a basis comparable to that of a commercial bank. It reflects adjustments for intra-System items that would otherwise be double-counted on a consolidated Federal Reserve balance sheet; adjustments for items associated with nonpriced items, such as those collected for government agencies; and adjustments for items associated with providing fixed availability or credit before items are received and processed. Among the costs to be recovered under the Monetary Control Act is the cost of float, or net CIPC during the period (the difference between gross CIPC and deferred-availability items, which is the portion of gross CIPC that involves a financing cost), valued at the federal funds rate.

(2) LONG-TERM ASSETS

Consists of long-term assets used solely in priced services, the priced-services portion of long-term assets shared with nonpriced services, and an estimate of the assets of the Board of Governors used in the development of priced services. Effective Jan. 1, 1987, the Reserve Banks implemented the Financial Accounting Standards Board's Statement of Financial Accounting Standards No. 87, *Employers' Accounting for Pensions* (SFAS 87). Accordingly, the Reserve Banks recognized credits to expenses of $45.3 million in 1996 and $35.4 million in 1995 and corresponding increases in this asset account.

(3) LIABILITIES AND EQUITY

Under the matched-book capital structure for assets that are not "self-financing," short-term assets are financed with short-term debt. Long-term assets are financed with long-term debt and equity in a proportion equal to the ratio of long-term debt to equity for the fifty largest bank holding companies, which are used in the model for the private-sector adjustment factor (PSAF). The PSAF consists of the taxes that would have been paid and the return on capital that would have been provided had priced services been furnished by a private-sector firm. Other short-term liabilities include clearing balances maintained at Reserve Banks and deposit balances arising from float. Other long-term liabilities consist of accrued postemployment (see note 9) and postretirement benefits costs and obligations on capital leases.

(4) REVENUE

Revenue represents charges to depository institutions for priced services and is realized from each institution through one of two methods: direct charges to an institution's account or charges against its accumulated earnings credits.

(5) OPERATING EXPENSES

Operating expenses consist of the direct, indirect, and other general administrative expenses of the Reserve Banks for priced services plus the expenses for staff members of the Board of Governors working directly on the development of priced services. The expenses for Board staff members were $2.8 million in 1996 and $2.7 million in 1995. The credit to expenses under SFAS 87 (see note 2) is reflected in operating expenses.

The income statement by service reflects revenue, operating expenses, and imputed costs except for income taxes. Total operating expense does not equal the sum of operating expenses for each service because of the effect of SFAS 87. Although the portion of the SFAS 87 credit related to the current year is allocated to individual services, the amortization of the initial effect of implementation is reflected only at the System level.

(6) IMPUTED COSTS

Imputed costs consist of interest on float, interest on debt, sales taxes, and the FDIC assessment. Interest on float is derived from the value of float to be recovered, either explicitly or through per-item fees, during the period. Float costs include costs for checks, book-entry securities, noncash collection, ACH, and funds transfers.

Interest is imputed on the debt assumed necessary to finance priced-service assets. The sales taxes and FDIC assessment that the Federal Reserve would have paid had it been a private-sector firm are among the components of the PSAF (see note 3).

Float costs are based on the actual float incurred for each priced service. Other imputed costs are allocated among priced services according to the ratio of operating expenses less shipping expenses for each service to the total expenses for all services less the total shipping expenses for all services.

The following list shows the daily average recovery of float by the Reserve Banks for 1996 in millions of dollars:

Total float	795.4
Unrecovered float	12.4
Float subject to recovery	783.0
Sources of recovery of float	
Income on clearing balances	78.4
As-of adjustments	382.0
Direct charges	116.4
Per-item fees	206.2

Appendix 2 - Pro Forma Financial Statements

Unrecovered float includes float generated by services to government agencies and by other central bank services. Float recovered through income on clearing balances is the result of the increase in investable clearing balances; the increase is produced by a deduction for float for cash items in process of collection, which reduces imputed reserve requirements. The income on clearing balances reduces the float to be recovered through other means. As-of adjustments and direct charges are midweek closing float and interterritory check float, which may be recovered from depositing institutions through adjustments to the institution's reserve or clearing balance or by valuing the float at the federal funds rate and billing the institution directly. Float recovered through per-item fees is valued at the federal funds rate and has been added to the cost base subject to recovery in 1996.

(7) Other Income and Expenses

Consists of investment income on clearing balances and the cost of earnings credits. Investment income on clearing balances represents the average coupon-equivalent yield on three-month Treasury bills applied to the *total* clearing balance maintained, adjusted for the effect of reserve requirements on clearing balances. Expenses for earnings credits granted to depository institutions on their clearing balances are derived by applying the average federal funds rate to the *required* portion of the clearing balances, adjusted for the net effect of reserve requirements on clearing balances.

Because clearing balances relate directly to the Federal Reserve's offering of priced services, the income and cost associated with these balances are allocated to each service based on each service's ratio of income to total income.

(8) Income Taxes

Imputed income taxes are calculated at the effective tax rate derived from the PSAF model (see note 3). Taxes have not been allocated by service because they relate to the organization as a whole.

(9) Postemployment and Vacation Benefits

Effective Jan. 1, 1995, the Reserve Banks implemented SFAS 112, *Employers' Accounting for Postemployment Benefits*, and SFAS 43, *Accounting for Compensated Absences*. Accordingly, in 1995 the Reserve Banks recognized a one-time cumulative charge of $28.1 million to reflect the retroactive application of these changes in accounting principles.

(10) Adjustments to Net Income for Price Setting

In setting fees, certain costs are excluded in accordance with the System's overage and shortfalls policy and its automation consolidation policy. Accordingly, to compare the financial results reported in this table with the projections used to set prices, adjust net income as follows (amounts shown are net of tax):

	1996	1995
Net income	69.5	12.6
Amortization of the initial effect of implementing SFAS 87	−10.5	−10.4
Deferred costs of automation consolidation	−6.3	−.1
Cumulative effect of retroactive application of SFAS 112 and SFAS 43	...	19.4
Adjusted net income	52.6	21.5

(11) Return on Equity

The after-tax rate of return on equity that the Federal Reserve would have earned had it been a private business firm, as derived from the PSAF model (see note 3). This amount is adjusted to reflect the recovery of $6.3 million of automation consolidation costs for 1996 and $0.1 million for 1995. The Reserve Banks plan to recover these amounts, along with a finance charge, by the end of the year 2001. After-tax return on equity has not been allocated by service because it relates to the organization as a whole.

Appendix 3 - Board Treatment of Pension Credits Adjustments in Service Pricing

During our closing meeting on this audit, RBOPS officials requested that we provide our opinion regarding whether the Federal Reserve's handling of pension credits was reasonable and consistent in the context of how the Federal Reserve complies with the MCA. To address the specific question posed by RBOPS, we considered whether the approach used by the Federal Reserve

— complied with Generally Accepted Accounting Principles (GAAP);

— was reasonable and consistent for allocating pension credits to priced services;

— was consistent, for price-setting and cost-recovery-reporting purposes, with the treatment of other postemployment benefit expense accruals; and

— was reasonable, considering how the PSAF is affected by the pension fund behavior of private-sector firms.

Pension Accounting Requirements and GAAP Compliance

In December 1985, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards No. 87, *Employers' Accounting for Pensions (*FAS 87*).* The objective was to improve uniformity and comparability of reported pension information by requiring a standardized method for measuring net periodic pension cost, immediate recognition of a liability when the accumulated benefit obligation exceeds the fair value of plan assets, and expanded disclosures in the financial statements. Net periodic pension cost includes the actuarial present value of retirement benefits (including projected increases) earned by employees during the period less earnings on plan assets (adjusted for contributions and benefit payments). In computing the periodic cost, adjustments are also made for changes in plan benefits, revised actuarial assumptions, and the amortized value of any previously unrecognized gains or losses. One such amortized value is the annual portion of the "transition" obligation (asset), which is calculated by comparing the projected benefit obligation to the adjusted fair value of plan assets as of the date FAS 87 was implemented. The standard prescribes that this unrecognized net obligation (asset) should be amortized through an expense (credit) on a straight-line basis over fifteen years. Based on the calculation of net periodic pension costs, the actuary can make a recommendation as to how much the employer needs to contribute to the plan to fund the recognized liability.[8]

The Federal Reserve implemented FAS 87 on January 1, 1987. The retirement plan's actuary determined that as of that date, the System's pension fund was overfunded and that a transition asset would be required to be amortized via a credit to expenses (transition credit) from 1987 through 2001. Except for 1989, in every year from 1987 through 1996 (the last year included in our audit), the actuary has also determined that additional credits were warranted based on current year accruals. The Federal Reserve, in consideration of the actuary's recommendations, has made no employer funding contribution to the retirement plan since 1987.

The Federal Reserve has more recently implemented two other FASB statements pertaining to the accrual and recognition of other postretirement- and postemployment-related benefits. Effective January 1, 1993, the Federal Reserve implemented FAS 106, *Employers' Accounting for Postretirement Benefits Other Than Pensions* (primarily health and life insurance benefits). In design and implementation, FAS 106 is most like FAS 87 because it requires the actuarial calculation of both a net annual cost and a transition obligation. The transition obligation could be amortized or taken as a one-time charge (as the Federal Reserve did in 1993). Effective January 1, 1995, the Reserve Banks implemented FAS 112, *Employers Accounting for Postemployment Benefits* (e.g., severance and disability pay).[9] Implementation resulted in a one-time transition expense in 1995 and relatively small ongoing annual charges.

The credits and expense charges resulting from the implementation of these three FASB statements impact the System's financial statement and payment to Treasury because they represent decreases or increases, respectively, in net operating expenses. The independent financial auditors who audited the financial statements of the Reserve Banks, Board, and retirement fund for 1995 and 1996 identified no material exception to GAAP requirements in the System's treatment of pension and other related costs covered by these three FASB statements. The following table, based on data from the audited financial statements and the Board's *Annual Report*, shows the effect on Federal Reserve operating expenses of both the transition charge and the annual cost determinations for 1995 and 1996—the two years of available data to which all three FASB statements were being applied.

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[8]FAS 87 states that it is important to keep in mind that the annual pension cost to be charged to expense (i.e., the net periodic pension cost) is not necessarily the same as the amount to be funded by the employer for the year. The decision to fund a pension plan to a greater or lesser extent is an economic decision by management that is properly influenced by many factors, such as tax considerations and the availability of attractive alternative investments.

[9] The Board had implemented FAS 112 one year earlier. The difference in implementation date is not material to our analysis.

Table 2: Effect on Federal Reserve Expenses of Implementing Pension and Other Related FASB Statements

FASB Statement Accounting Standard	Transition Charge (note a)	Annual Cost Accrual (note b)	
		1995	1996
FAS 87	($681)	($74)	($95)
FAS 106	$519	$53	$53
FAS 112	$56	$14	$17
Net Operating Expense Adjustment	($106)	($7)	($25)

(Dollar amounts rounded to millions. Credit amounts are in parentheses.)

Notes:

a. The transition charge (credit) includes both Reserve Banks and the Board. The credit is amortized at $45.4 million per year from 1987 through 2001. The FAS 106 and FAS 112 expenses were one-time charges in 1993 and 1995, respectively.

b. The annual cost accrual includes reported net annual cost amounts for the Reserve Banks and the Board. The annual FAS 87 credit amounts shown here exclude the annual amortized portion of the transition credit.

Consistency of Pension Cost Allocations to Priced Services

The MCA requires that the Federal Reserve fully allocate costs to priced services. While percentages can vary from year to year, priced services have received an allocation of about one-third of the estimated Reserve Bank portion of the pension credit, and a comparable portion of the expense charges resulting from the other two FASB statements. During our audit, we reviewed the allocation of pension expense accruals as part of our review of the pro forma income statement and balance sheet for 1996. Specifically, we traced the pension figures from the audited consolidated Reserve Bank financial statements to the Pro Forma Financial Statements. The actual pension figures from the audited Reserve Bank statements are allocated to priced services based on the percentage share of salary dollars for employees engaged in priced services activities. We found this method of allocation reasonable and consistently practiced.

Consistency in How Pension Credits Were Used in Price Setting Relative to Other Accounting Adjustments

To assess the consistency in treatment of pension credits during pricing, we looked separately at how the Federal Reserve has dealt with the transition credit and the annual credit accrual since 1987. Annually, priced services as a whole has received its allocation of the amortized transition credit, but this allocation was not further apportioned to each priced service for pricing purposes. Instead, each service was expected to achieve its cost recovery target without considering the potential benefit of its share of the transition pension credit. Subsequently in 1993 and 1995, when one-time transition expenses resulted from implementation of the other FASB statements, they too were not apportioned to each service for pricing. Thus, the pricing treatment was identical for transition credits and expenses.

The annual accrual portion of net pension credit was treated differently for service pricing from 1987 to 1992 than in subsequent years. In this initial period, the annual credit was treated the same way as the transition obligation—no allocation to individual services. We believe that the approach used in this period was reasonable and consistent with the MCA's intent because it resulted in a more conservative pricing approach. Specifically, each service could not lower its prices in explicit recognition of the credit, but such credits would still apply when determining compliance with the MCA.

In 1993, the approach changed when Reserve Banks began recognizing annual expense accruals related to FAS 106 expenses. Because FAS 106 expenses were under the direct control of each Reserve Bank and were allocated to specific Reserve Bank activities in PACS, System officials decided that it would be more appropriate to include the FAS 106 annual costs as expenses for service pricing. Because these new annual costs were to be included, System officials decided that it was reasonable to let each service also consider the expense-reducing pension credits when setting prices. Beginning in 1995, each service also began including the annual cost related to FAS 112 as an expense for pricing. We believe that the approach used since 1993 for including both annual credits and costs in setting individual service prices has been reasonable and balanced.

Consistency in How Pension Credits Were Used in Reporting Cost Recovery Performance Relative to Other Accounting Adjustments

As discussed in the report, the Federal Reserve reports cost recovery performance using different methodologies in the annual pricing announcement and in the *Annual Report.* To assess the consistency in treatment of pension credits for cost recovery reporting, we again looked separately at how the transition credit and the annual credit accrual were handled in both documents. In the pricing announcements, neither the amortized transition pension credit nor the one-time transition expenses were included in the calculation of cost recovery performance. However, all such transition credits and expenses have been included in the computation of annual and ten-year cost recovery shown in the *Annual Report,* although this fact is not clearly stated in the text. In our review of the *Annual Report's* pro forma financial statements, we found that the transition pension credit and the one-time transition expense charges are reflected differently but the presentation is consistent with GAAP.[10] As for the annual credit and expense accruals, all are included, although not explicitly, within total operating expenses at both the total priced services and individual service level, in both the pricing announcement and *Annual Report* presentations of cost recovery. Overall, we found that the Federal Reserve's approach to cost recovery reporting is reasonable and consistent for these accounting adjustments although, as noted in our report, explanations could be improved.

Competitor Pension-Funding Practices and PSAF Considerations

As noted earlier, FAS 87 states that the decision to fund a pension plan to a greater or lesser extent is an economic decision by management that is properly influenced by many factors, such as tax considerations and the availability of attractive alternative investments. As the final component in our assessment of the reasonableness of the Federal Reserve's approach to pension credits, we considered whether it is appropriate for the Federal Reserve to consider the pension credit in setting prices when most private-sector competitors, if faced with an overfunded pension fund, would likely have liquidated plan assets and not had a continued credit offset to expenses.

As discussed in the audit report, the Board calculates its imputed priced services costs and target profit level using a PSAF model that captures data on the fifty largest bank holding companies over the previous five-year period. To the extent that these BHCs are competitors to the Federal Reserve or emulate the pension fund management practices of other firms who compete with the Federal Reserve, we believe that the PSAF model conceptually

[10] A note to the financial statements explains that the transition pension credit has reduced the figure for total operating expenses for all services. The other one-time transition costs are shown in the income statement as one-time charges against net income and explained in a statement note (see appendix 2 of this report, statement notes 5 and 9). Also, note 10 presents an explanation of the difference in treatment for these items in the *Annual Report* and the pricing announcement.

captures the effects of different industry practices in a way that offsets the cost-reducing effects of the pension credits on the Federal Reserve. If industry practice had been to liquidate any pension overfunding after implementation of FAS 87, then other things being equal, industry revenue and earnings would have increased, which in turn would have resulted in a higher target return on equity (larger PSAF) for the Federal Reserve. Having to recover higher imputed costs would to some degree offset the cost-reducing impact of the pension credits on Federal Reserve operating expenses. With respect to current annual credit accruals, these are largely the result of a highly favorable investment environment, which would affect the Federal Reserve and competing firms in a comparable way. Thus, although the Federal Reserve may not have behaved the same way as its private-sector competitors with respect to its overfunded pension account, if the BHC model emulates industry practice, then the effect of the Federal Reserve's pension fund approach would be offset to some degree by industry practice.

Conclusion

Based on our findings and observations, it is our opinion that the Board's handling of pension credits has been reasonable and consistent in the context of how the Board complies with the pricing provisions of the Monetary Control Act.

Appendix 4 - Principal OIG Contributors to This Report

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